

From the INTERNATIONAL BUREAU

**PCT**NOTIFICATION CONCERNING  
TRANSMITTAL OF COPY OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY  
(CHAPTER I OF THE PATENT COOPERATION  
TREATY)

(PCT Rule 44bis.1(c))

To:

THOMPSON, Dwight U.  
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P.O. Box 1022  
Minneapolis, Minnesota 55440-1022  
ETATS-UNIS D'AMERIQUEDate of mailing (*day/month/year*)  
26 April 2007 (26.04.2007)Applicant's or agent's file reference  
09991-170WO1**IMPORTANT NOTICE**International application No.  
PCT/US2005/036935International filing date (*day/month/year*)  
12 October 2005 (12.10.2005)Priority date (*day/month/year*)  
15 October 2004 (15.10.2004)

Applicant

FUJIFILM DIMATIX, INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO  
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# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>09991-170WO1</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/US2005/036935</b>	International filing date ( <i>day/month/year</i> ) <b>12 October 2005 (12.10.2005)</b>	Priority date ( <i>day/month/year</i> ) <b>15 October 2004 (15.10.2004)</b>
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant <b>FUJIFILM DIMATIX, INC.</b>		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report <b>17 April 2007 (17.04.2007)</b>  Authorized officer  <div style="text-align: center; font-weight: bold; font-size: 1.2em;">Nora Lindner</div> e-mail: pt02.pct@wipo.int
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 30 MAY 2006

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2005/036935

International filing date (day/month/year)  
12.10.2005

Priority date (day/month/year)  
15.10.2004

International Patent Classification (IPC) or both national classification and IPC  
INV. G06F3/12 G06K15/02

Applicant  
DIMATIX, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
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Date of completion of  
this opinion

see form  
PCT/ISA/210

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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/036935

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of:
  - ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in electronic form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/036935

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-11,17-21
	No: Claims	12-16
Inventive step (IS)	Yes: Claims	
	No: Claims	1-21
Industrial applicability (IA)	Yes: Claims	1-21
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**1. PRIOR ART**

1.1. Reference is made to the following document:

D1: EP-A-1 452 313 (OLYMPUS CORPORATION) 1 September 2004 (2004-09-01)

D2: US-B1-6 295 077 (SUZUKI KAZUYOSHI) 25 September 2001 (2001-09-25)

**2. INDEPENDENT CLAIMS**

2.1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

Document D1 discloses (the references in parentheses applying to this document):  
a device for assembling image data into a packet to send to a print head assembly (par. [0027] - [0029]: image data is assembled in memory 101 of fig. 1 and sent to print heads 203, 204 in fig. 2), the device comprising  
an array of state machines, wherein each state machine corresponds to a logical image queue (par. [0027], [0028]: the divided image memories 104, 105 are logical image queues; the transfer of image data to the recording heads 106, 107 implies the existence of state machines in the system of D1), and wherein each state machine has a corresponding delay input that is configured to arrange the image data according to logical scan lines (the existence of some delay input is implied in the system of D1 as the image data in the divided image memories (par. [0027] - [0032]) is printed sequentially); and  
a communication interface configured to send the packet of image data to the print head assembly (par. [0027] - [0029]: the sending of the image data to the print head assembly implies the existence of a communication interface in D1).

The subject-matter of claim 1 therefore only differs from D1 in that claim 1 claims a serializer for serializing image data, whereas D1 does not mention such serializer.

Nonetheless, a serializer is a well-known component (e.g. D2, col. 6, ln. 15 - 56 and fig. 4)

which would be chosen by the skilled person as a direct consequence of an obvious choice of connection type (parallel or serial). Therefore the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

2.2. The subject-matter of independent claim 18, which substantially corresponds to the subject-matter of claim 1, does not meet the criteria of Article 33(1) PCT, for the same reasons, *mutatis mutandis*, as stated in par. 2.1.

2.3. D1 discloses all the features of claim 12:

a method performed by a computer for controlling high bandwidth printing by a remote printer (par. [0027] - par. [0029]), the method comprising

- detecting a speed and a position of a workpiece relative to the remote printer (this implicitly happens in the system of D1 otherwise correct printing would be impossible);
  - assembling image data into an image data packet based on the detected speed and position of the workpiece (par. [0028]: the data is implicitly assembled before being stored in the image memories); and
  - transmitting the image data packet to the remote printer substantially at an instant at which an image is to be printed on the workpiece (par. [0027] - [0029]: image data is implicitly transmitted at an instant at which an image is to be printed on the workpiece).
- Therefore the subject-matter of this claim is not new in the sense of Article 33(2) PCT.

### 3. DEPENDENT CLAIMS

3.1. Dependent claims 2 - 11, 13 - 17 and 19 - 21 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT), see document D1 and the other documents and passages mentioned in the search report.